

What is claimed is:

5 1. A multilayer displacement element formed by alternately stacking a plurality of ceramic layers and a multiplicity of internal electrodes, wherein each of the ceramic layers is composed of ceramic grains containing barium titanate as a major component.

10 2. The multilayer displacement element as recited in claim 1, wherein the ceramic grains constituting said each of the ceramic layers have an average diameter equal to or larger than 3.5 μm .

15 3. The multilayer displacement element as recited in claim 1, wherein those portions where one grain constitutes one layer are equal to or larger than 20 % of the entire area of the ceramic layer.

20 4. The multilayer displacement element as recited in claim 1, wherein the internal electrodes are obtained by sintering a conductive paste containing Ni powder as a major component.

25 5. The multilayer displacement element as recited in claim 2, wherein those portions where one grain constitutes one layer are equal to or larger than 20 % of the entire area of the ceramic layer.

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6. The multilayer displacement element as recited in claim 2, wherein the internal electrodes are produced by sintering a conductive paste containing Ni powder as a main component.

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7. The multilayer displacement element as recited in claim 3, wherein the internal electrodes are generated by sintering a conductive paste containing Ni powder as a principal component.

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8. A method for manufacturing the multilayer displacement element of claim 1, comprising the steps of:

(a) forming ceramic green sheets that are composed of electrostrictive ceramic powder containing the barium titanate as a major component;

(b) alternately stacking a multiplicity of internal electrode patterns formed from an electrically conductive paste and a plurality of ceramic green sheets to thereby produce a laminated ceramic green body; and

(c) sintering the laminated ceramic green body, wherein the sintering process is conducted at a temperature ranging from 1000 to 1400 °C and for a duration ranging from 0.5 to 20 hours.

9. The method according to claim 8, wherein the ceramic green sheet has a thickness equal to or smaller than 9 μm .

10. The method according to claim 8, wherein the internal electrode pattern is formed from an electrically conductive paste whose principal component is Ni powder.

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11. The method according to claim 9, wherein the internal electrode pattern is formed from an electrically conductive paste whose principal component is Ni powder.

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Added